Claims

1. A magnesium chloride based carrier containing a titanium alkoxide compound represented by the formula $Ti(OR)_4$ and an alcohol represented by the formula ROH, wherein R is C_1~C_7alkyl, characterized in that in the X-rays powder diffraction spectrum of the carrier, one or two main diffraction lines appear at 2θ of 2~14° and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

2. The carrier according to claim 1, characterized in that in said carrier, the molar ratio of said titanium alkoxide compound represented by the formula $Ti(OR)_4$ to $MgCl_2$ is 0.01~0.1, the molar ratio of said alcohol represented by the formula ROH to $MgCl_2$ is 0.01~1.0, wherein R is C_2~C_5alkyl.

3. The carrier according to claims 1 or 2, characterized in that said titanium alkoxide compound represented by the formula $Ti(OR)_4$ is titanium butoxide or titanium ethoxide.

4. The carrier according to claim 1, characterized in that the intensity of the main diffraction line or the intensity of the more intense one of the main diffraction lines of said carrier appearing in a range of 2θ of 2~14° is 0.2~1.5 times that of the diffraction line at 2θ of 14.9±0.4°.

5. The carrier according to claim 1, characterized in that one main diffraction line appears at 2θ of 7.4±0.4° when the alcohol used in the carrier is ethanol, and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

6. The carrier according to claim 1, characterized in that one diffraction line which is more intense appears at 2θ of 5.9±0.4° and one diffraction line which is less intense appears at 2θ of 10.9±0.4° when the alcohol used in the carrier is propanol, and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

7. The carrier according to claim 1, characterized in that one intense diffraction line appears at 2θ of 5.4±0.4° when the alcohol used in the carrier is butanol, and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

8. The carrier according to claim 1, characterized in that one diffraction line appears at 2θ of 4.2±0.4° when the alcohol used in the carrier is hexanol, and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

9. A solid catalyst component for olefin polymerization, prepared by reacting the carrier according to claim 1 with a transition metal compound in an inert hydrocarbon solvent, characterized in that in the X-rays powder diffraction spectrum of the catalyst component, one or two main diffraction lines or a halo appears at 2θ of 2~14° and in the range of 2θ of 14~50°, there are the characteristic diffraction lines of anhydrous α-$MgCl_2$.

10. The catalyst component according to claim 9, characterized in that said transition metal compound is represented by the formula $Ti(OR_1)_nCl_{4-n}$, wherein n is from 0 to 4, R_1 is C_1~C_{12}alkyl, and that the titanium content in the solid catalyst component is 0.5~10wt%.

11. The catalyst component according to claim 9, characterized in that the intensity of the main diffraction line or the intensity of the more intense one of the main diffraction lines of said catalyst component appearing in a range of 2θ of 2~14° is 0.1~1.5 times that of the diffraction line at 2θ of 14.9±0.4°.

12. The catalyst component according to claim 9, characterized in that one diffraction line which is more intense appears at 2θ of 5.5±0.4° and one diffraction line which is less intense appears at 2θ of 12.5±0.4° in the X-rays powder diffraction spectrum of the catalyst when the alcohol used in the carrier is butanol.

13. The catalyst component according to claim 9, characterized in that one diffraction line which is more intense appears at 2θ of 5.9±0.4° and one diffraction line which is less intense appears at 2θ of 12.5±0.4° in the X-rays powder diffraction spectrum of the catalyst when the alcohol used in the carrier is propanol.

14. The catalyst component according to claim 9, characterized in that one intense diffraction line appears at 2θ of 4.8±0.4° in the X-rays powder diffraction spectrum of the catalyst when the alcohol used in the carrier is hexanol.

15. The catalyst component according to claim 9, characterized in that a halo appears at 2θ of 5~7° in the X-rays powder diffraction spectrum of the catalyst when the alcohol used in the carrier is ethanol.